Notice of Allowability	Application No.	Applicant(s)	
	09/995,736	KAFAFI ET AL.	
	Examiner	Art Unit	
	Anastasia Midkiff	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *RCE filed 28 June 2006*.

2. ☒ The allowed claim(s) is/are *56-81*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

Claims 56-81 are allowed.

With respect to Claim 56, the best prior art of record teaches many of the elements of the claimed invention, including a device comprising: a hole transporting layer; a host layer comprising a material capable of emitting light at a wavelength in the blue region; a host layer including at least one of a first portion having a red light emitting dopant material therein and capable of emitting light at a wavelength in the red region, and a second portion having a green light emitting dopant material therein and capable of emitting light at a wavelength in the green region; an electron transport layer; a first electrode; a second electrode; wherein said hole transporting layer, said host layer, and said electron transport layer are disposed between said first electrode and said second electrode; and wherein said first electrode and said second electrode are operable to provide a bias across said hole transporting layer, said host layer, and said electron transport layer.

However prior art fails to teach or fairly suggest the device wherein the host layer comprises an undoped material capable of emitting light at a wavelength in the blue region, in combination with a red light emitting dopant and a green light emitting dopant, in the manner required by Claim 56.

With respect to Claim 63, the best prior art of record teaches many of the elements of the claimed invention, including a device comprising: a hole transporting layer comprising a material capable of emitting light at a wavelength in the blue region

and including at least one of a first portion having a red light emitting dopant material therein and capable of emitting light at a wavelength in the red region, and a second portion having a green light emitting dopant material therein and capable of emitting light at a wavelength in the green region; an electron transport layer; a first electrode; a second electrode; wherein said hole transporting layer and said electron transport layer are disposed between said first electrode and said second electrode; and wherein said first electrode and said second electrode are operable to provide a bias across said hole transporting layer and said electron transport layer.

However prior art fails to teach or fairly suggest the device wherein the hole transporting layer comprises an undoped material capable of emitting light at a wavelength in the blue region, in combination with a red light emitting dopant and a green light emitting dopant, in the manner required by Claim 63.

With respect to Claim 68, the best prior art of record teaches many of the elements of the claimed invention, including a device comprising: a hole transporting layer; a host layer including at least one of a first portion having a red light emitting dopant material therein and capable of emitting light at a wavelength in the red region, and a second portion having a green light emitting dopant material therein and capable of emitting light at a wavelength in the green region; an electron transport layer; a first electrode; a second electrode; wherein said hole transporting layer, said host layer, and said electron transport layer are disposed between said first electrode and said second electrode; and wherein said first electrode and said second electrode are operable to provide a bias across said hole transporting layer, said host layer, and said electron

transport layer; and wherein, when provided with said bias, at least one of said first portion emits light in the red region and said second portion emits light in the green region due to energy transfer and direct carrier recombination in the layer.

However, prior art fails to teach or fairly suggest the device wherein said host layer comprises a material having a spectral overlap with said at least one of said first portion and said second portion, wherein the spectral overlap enables the energy transfer and direct carrier combination in said host layer, in the manner required by Claim 68.

With respect to Claim 75, the best prior art of record teaches many of the elements of the claimed invention, including a device comprising: a hole transporting layer; an electron transport layer; a first electrode; a second electrode; wherein said hole transporting layer and said electron transport layer are disposed between said first electrode and said second electrode; wherein one of said hole transporting layer and said electron transport layer includes at least one of a first portion having a red light emitting dopant material therein and capable of emitting light at a wavelength in the red region, and a second portion having a green light emitting dopant material therein and capable of emitting light at a wavelength in the green region; and wherein said first electrode and said second electrode are operable to provide a bias across said hole transporting layer and said electron transport layer; and wherein, when provided with said bias, at least one of said first portion emits light in the red region and said second portion emits light in the green region due to energy transfer and direct carrier recombination in the layer.

However, prior art fails to teach or fairly suggest the device wherein said one of said hole transporting layer and said electron transport layer comprises a material having a spectral overlap with said at least one of said first portion and said second portion, wherein the spectral overlap enables the energy transfer and direct carrier combination in said host layer, in the manner required by Claim 68.

Claims 57-62, 64-67, 69-74, and 76-81 are allowed by virtue of their dependency upon Claims 56, 63, 68, and 75, respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anastasia Midkiff whose telephone number is 571-272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASM
9/16/06

EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER